



**ALL-TEST
ENVIRONMENTAL
LABORATORIES, INC.**

60 Railroad Avenue, Hasbrouck Heights, N.J. 07604

(201) 288-6511 FAX: (201) 288-6887

Project No. 60027
Lab No. S-2242B
Client Name: Heritage Remediation

Matrix: Oil
Monitoring Well: MW-RW
Date Analyzed 1/2/91

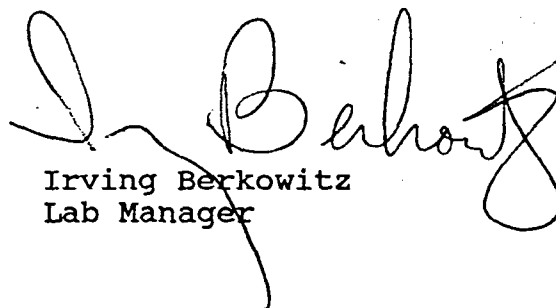
Analyzed a oil sample for a " Qualitative G.C.
Fingerprint ".

Analysis -

The peak patterns for this GC Fingerprint (see attached chromatogram) were compared to both lighter Fuel Distillates and Heavy Residual Fuel Oils. Quantitative analysis was impossible because of the matrix of the sample.

As per your instructions I will keep the chromatogram for future reference and ID.

by:

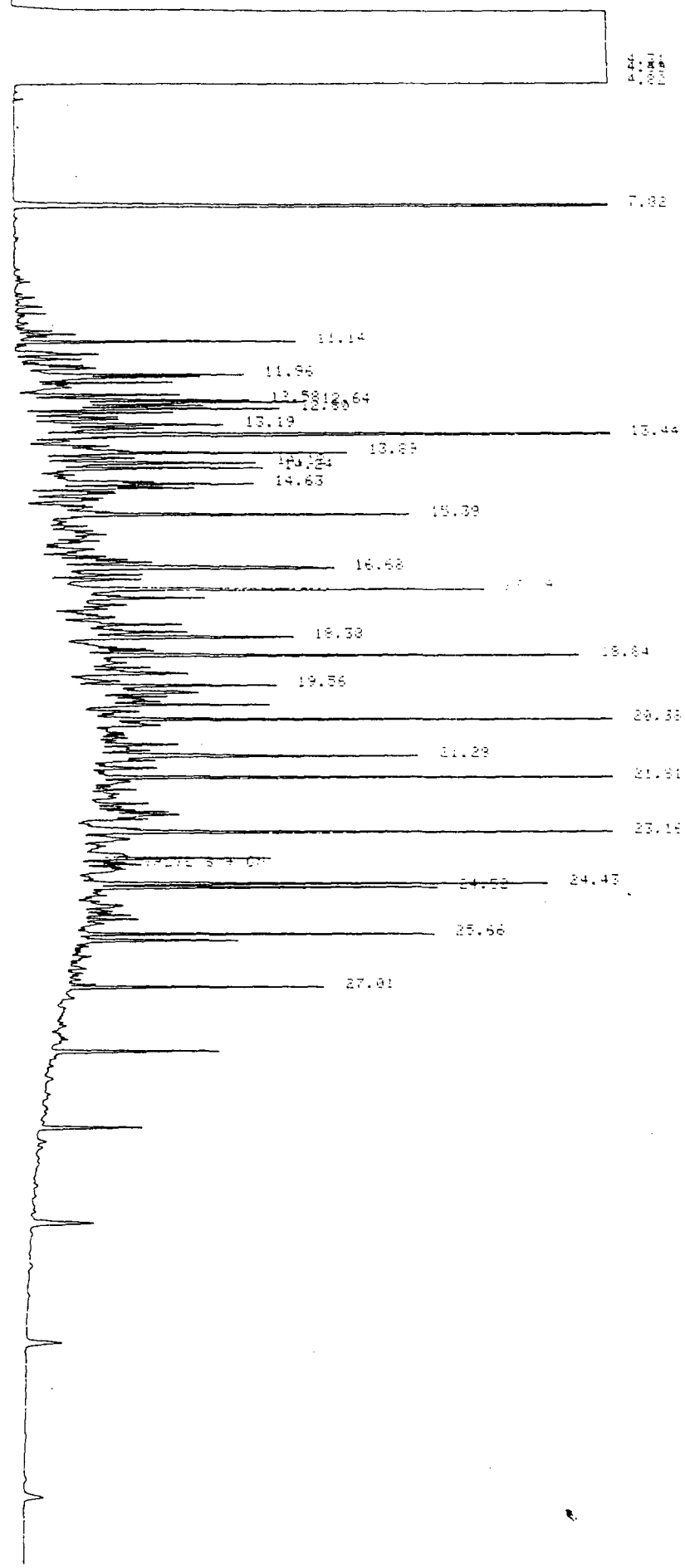

Irving Berkowitz
Lab Manager

SDMS Document



88509

MW-RD



S-2272



CHAIN OF CUSTODY RECORD

HERITAGE REMEDIATION/ENGINEERING, INC.

Toledo Division • 5656 Opportunity Drive • Toledo, OH 436

PROJ. NO.		PROJECT NAME		NO. OF CONTAINERS		<div style="display: flex; justify-content: space-around;"> <div>PCD</div> <div>625 + 25</div> <div>624 + 14</div> <div>Phenol</div> <div>T Cyanide</div> <div>13 Metals P.P.</div> </div>						REMARKS	
SAMPLERS: (Signature)													
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION								
MW-26	12-18				MW-26 in Building 3	1-liter	X						Field Blank taken through expendable bailer, outside, at light drizzle as was MW sample # MW-20 from across Main Street.
"	"				"	1-liter		X					
"	"				"	1-VOA			X				
"	"				"	1-500cc glass				X			
"	"				"	1-500cc plastic					X		
"	"				"	2-250cc						X	
MW-20	12-18				MW-20 across Main St	1-liter	X						
"	"				"	1-liter		X					
"	"				"	2-VOA			X				← 1-duplicate taken
"	"				"	1-500cc glass				X			
"	"				"	1-500cc plastic					X		
Trip Blank	12-18				Distilled H ₂ O	1-40ml							ALSO INCLUDED 1-40 ml vial of oil layer from RW for fingerprint analyses + PCB
Field Blank	12-18				Distilled H ₂ O	2-1 liter	X	X					
"	"				"	1 VOA			X				
"	"				"	2-500cc plastic				X	X	X	
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)			
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)			
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature)		Date / Time		Remarks					

885090003



**ALL-TEST
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60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Method 418.1 Total Petroleum Hydrocarbons

Project No. 60027
Sample No. MW-23
Client Name: Heritage Remediation

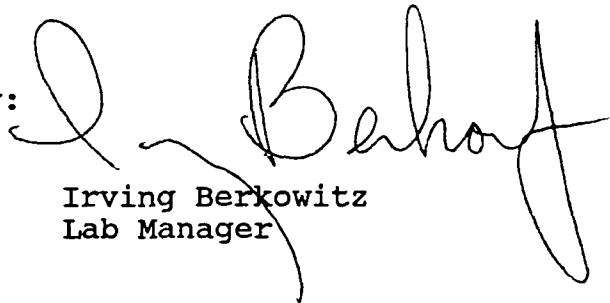
Matrix: Water
Lab No. S-2200
Date Analyzed 12/11/90

Reference: Monitoring Well #23
Project # 2220

Please note the following results for the " Monitoring Well
Water " sample and tested for " Total Petroleum Hydrocarbons
" (TPHC) . All results are reported in mg/l (ppm).

Parameter	Results (mg/l)	MDL (mg/l)
Total Petroleum Hydrocarbons	506	.05

By:


Irving Berkowitz
Lab Manager

ND = Non Detected
MDL = Method Detection Limit



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Project No. 60027
Lab No. S-2220
Client Name: Heritage Remediation

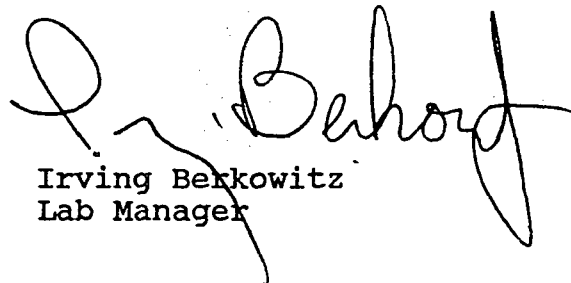
Matrix: Water
Monitoring Well: MW-23
Date Analyzed 12/11/90

Analyzed a oily aqueous sample for a " Qualitative G.C.
Fingerprint ".

Analysis -

The peak patterns for this GC Fingerprint (see attached chromatographs) match that of a ?
The patterns observed where compared to both lighter Fuel Distillates and Heavy Residual Fuel Oils. Quantitative analysis was impossible because of the matrix and amount of sample.

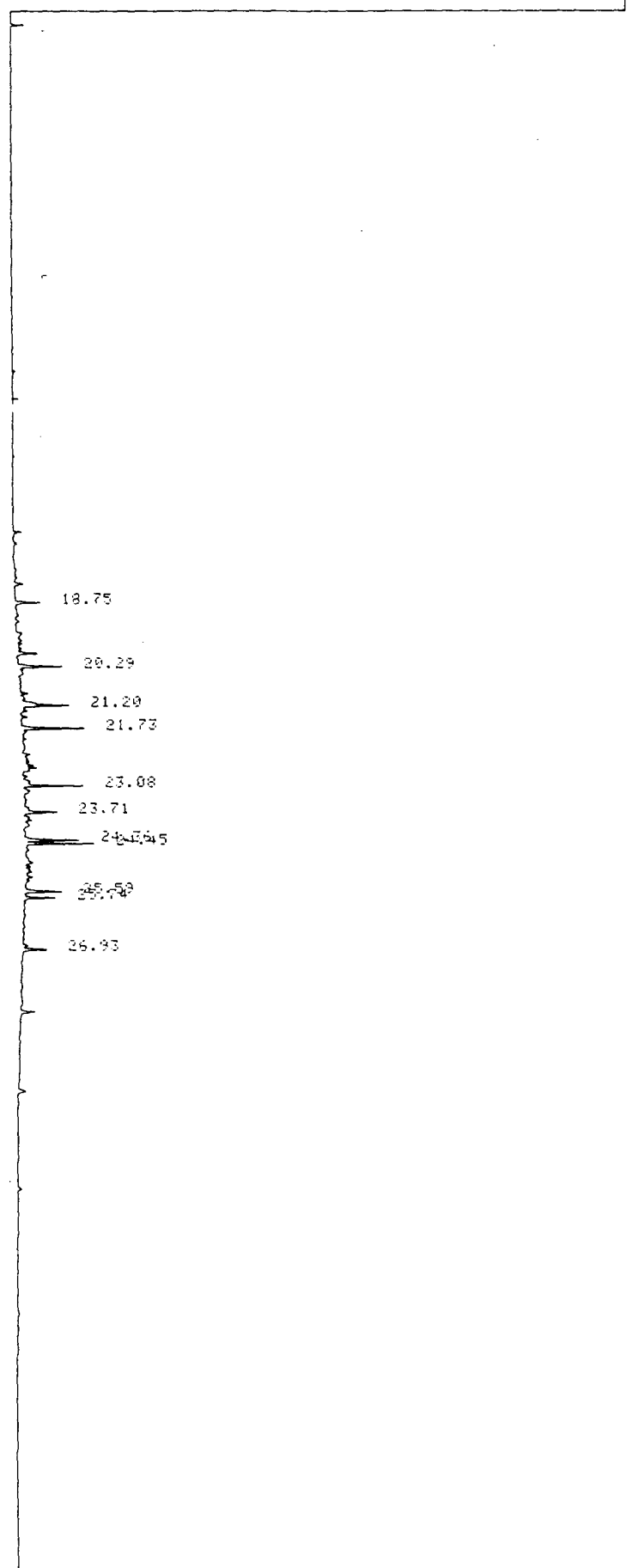
by:



Irving Berkowitz
Lab Manager

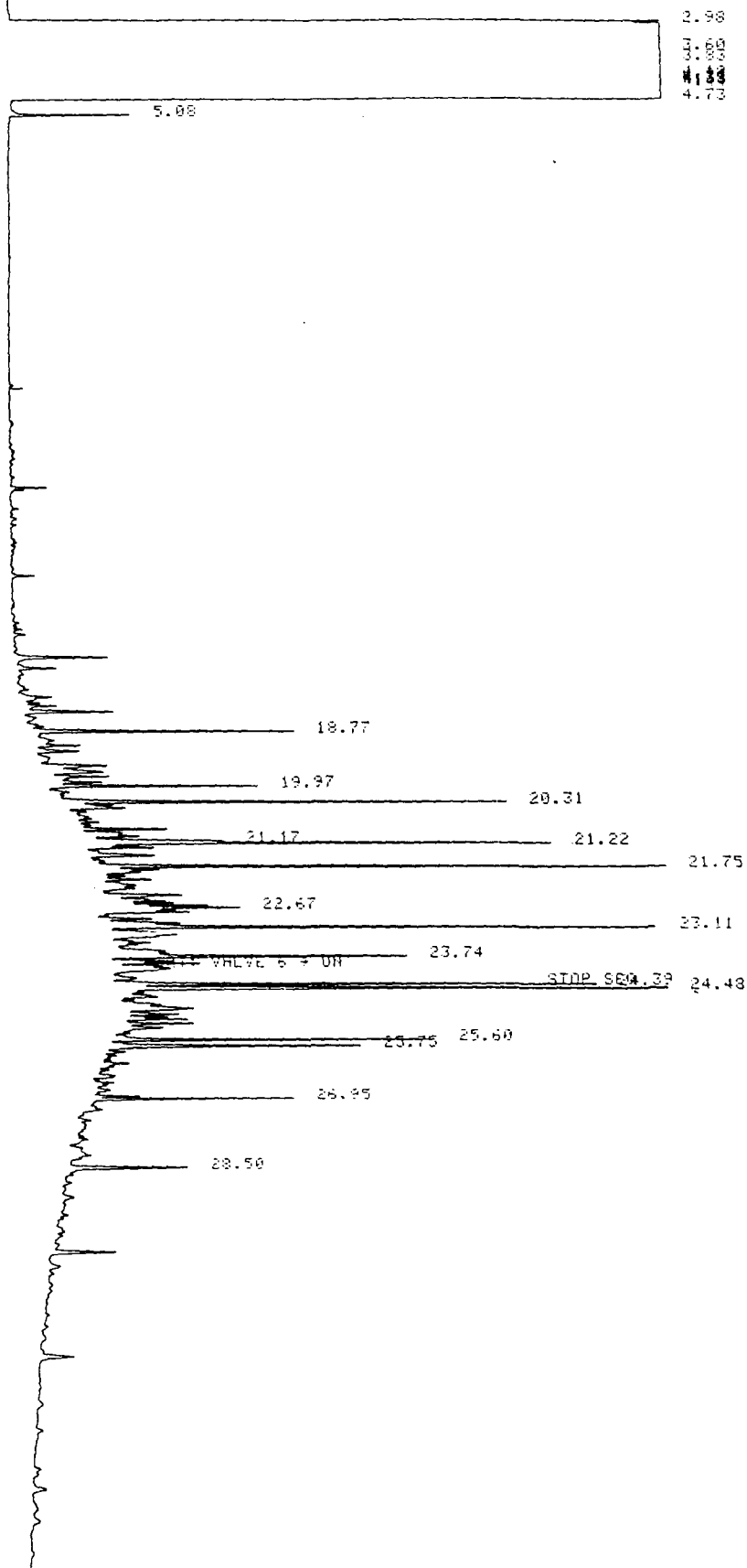
RT: VALVE 6 - 5

10/07/00 10:00
T: 100.00
P: 101.00
F: 101.00



111

RT: VALVE 6 + OFF



11-5820A SAMPLER INJECTION @ 14:49 DEC 11, 1990

SAMPLE # : ID CODE :

2 5-2220MW23

AREA %

RT AREA TYPE AREA %

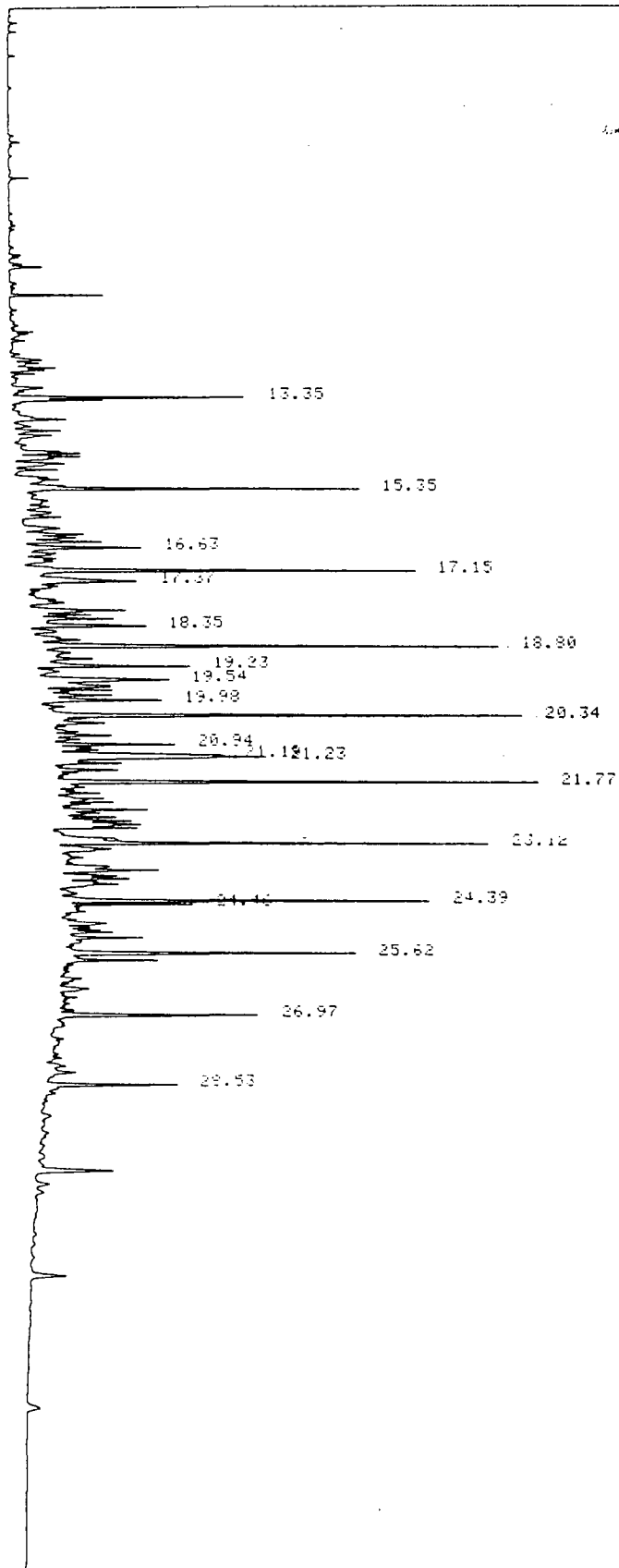
2.98

885090007

START AUTO SEQ 1
START AUTO SEQ 12-13

#2 F.O. STC

RT: VALVE 6 - OFF



1.000
0.000
0.000

162

885090008



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Volatile Organic Analysis Data

Case No. 60027

Sample No. S-2242 MW-20

Client Name: Heritage Eng/Rem

Matrix: Aqueous

Dilution Factor: 1.00

Date Analyzed: 12/26/90

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
Chloromethane	ND	10.0
Bromomethane	ND	10.0
Vinyl Chloride	ND	10.0
Chloroethane	ND	10.0
Methylene Chloride	16.9	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethylene	ND	5.0
1,1 Dichloroethane	ND	5.0
Trans-1,2 Dichloroethylene	5.2	5.0
Chloroform	4.0 BMDL	5.0
1,2-Dichloroethane	ND	5.0
1,1,1-Trichloroethane	4.8 BMDL	5.0
Carbon Tetrachloride	ND	5.0
Bromodichloromethane	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2-Dichloropropane	ND	5.0
Trans-1,3-Dichloropropene	ND	5.0
Trichloroethylene	16.7	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
Cis-1,3-Dichloropropene	ND	5.0
2-Chloroethyl Vinyl Ether	ND	10.0
Bromoform	ND	5.0
Tetrachloroethylene	119	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
m-Xylene	ND	10.0
o,p-Xylene	ND	10.0



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**All-Test Environmental Laboratories
Volatile Organic Analysis Data**

Case No. 60027
Sample No. S-2242 MW-20
Client Name: Hetitage Rem/Eng

Matrix: Aqueous
Dilution Factor: 1.00
Date Analyzed: 12/26/90

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
1,3-Dichlorobenzene	ND	10.0
1,2-Dichlorobenzene	ND	10.0
1,4-Dichlorobenzene	ND	10.0
Acrolein	ND	20.0
Acrylonitrile	ND	10.0

ND = None Detected
MDL = Method Detection Limit
BMDL = Below Method Detection Limit

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>
1,2-Dichloroethane-d4	92%	76-114
Toluene-d8	101%	88-110
4-Bromofluorobenzene	102%	86-115

By:


Irving Berkowitz
Lab Manager



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**Volatile Organic Analysis Data
Tentatively Identified Compounds**

Case No. 60027

Sample No. S-2242 MW-20

Client Name: Heritage Eng/Rem

Matrix: Aqueous

Dilution Factor: 1.00

Date Analyzed: 12/26/90

COMPOUND NAME	Concentration Units ug/l		
	RT	EST. CONC.	Q
1) Unknown Compound	23.99	4	0
2) 1-Hexene, 4-methyl-	35.58	37	34
3) Unknown Compound	39.42	4	0
4)			
5)			
6)			
7)			
8)			
9)			
10)			
11)			
12)			
13)			
14)			
15)			



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Volatile Organic Analysis Data

Case No. 60027

Sample No. S-2242 MW-20 Dup

Client Name: Heritage Eng/Rem

Matrix: Aqueous

Dilution Factor: 1.00

Date Analyzed: 12/26/90

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
Chloromethane	ND	10.0
Bromomethane	ND	10.0
Vinyl Chloride	ND	10.0
Chloroethane	ND	10.0
Methylene Chloride	16.8	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethylene	ND	5.0
1,1 Dichloroethane	ND	5.0
Trans-1,2 Dichloroethylene	4.9 BMDL	5.0
Chloroform	1.5 BMDL	5.0
1,2-Dichloroethane	ND	5.0
1,1,1-Trichloroethane	4.7 BMDL	5.0
Carbon Tetrachloride	ND	5.0
Bromodichloromethane	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2-Dichloropropane	ND	5.0
Trans-1,3-Dichloropropene	ND	5.0
Trichloroethylene	16.9	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
Cis-1,3-Dichloropropene	ND	5.0
2-Chloroethyl Vinyl Ether	ND	10.0
Bromoform	ND	5.0
Tetrachloroethylene	119	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
m-Xylene	ND	10.0
o,p-Xylene	ND	10.0



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**All-Test Environmental Laboratories
Volatile Organic Analysis Data**

Case No. 60027

Sample No. S-2242 MW-20 Dup.

Client Name: Hetitage Rem/Eng

Matrix: Aqueous

Dilution Factor: 1.00

Date Analyzed: 12/26/90

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
1,3-Dichlorobenzene	ND	10.0
1,2-Dichlorobenzene	5.6 BMDL	10.0
1,4-Dichlorobenzene	ND	10.0
Acrolein	ND	20.0
Acrylonitrile	ND	10.0

ND = None Detected

MDL = Method Detection Limit

BMDL = Below Method Detection Limit

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>
1,2-Dichloroethane-d4	90%	76-114
Toluene-d8	96%	88-110
4-Bromofluorobenzene	100%	86-115

By:


Irving Berkowitz
Lab Manager



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**Volatile Organic Analysis Data
Tentatively Identified Compounds**

Case No. 60027

Sample No. S-2242 MW-20 Dup.

Client Name: Heritage Eng/Rem

Matrix: Aqueous

Dilution Factor: 1.00

Date Analyzed: 12/26/90

COMPOUND NAME	Concentration Units ug/l		
	RT	EST. CONC.	Q
1) Unknown Compound	19.72	3	0
2) 1-Penten, 4,4-dimethyl-	35.50	13	25
3)			
4)			
5)			
6)			
7)			
8)			
9)			
10)			
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13)			
14)			
15)			



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Volatile Organic Analysis Data

Case No. 60027
Sample No. S-2242 MW-26
Client Name: Heritage Eng/Rem

Matrix: Aqueous
Dilution Factor: 50
Date Analyzed: 12/28/90

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
Chloromethane	ND	500
Bromomethane	ND	500
Vinyl Chloride	ND	500
Chloroethane	ND	500
Methylene Chloride	106,900	250
Trichlorofluoromethane	ND	250
1,1-Dichloroethylene	113 BMDL	250
1,1 Dichloroethane	ND	250
Trans-1,2 Dichloroethylene	122 BMDL	250
Chloroform	1,110	250
1,2-Dichloroethane	11,990	250
1,1,1-Trichloroethane	3,169	250
Carbon Tetrachloride	344	250
Bromodichloromethane	ND	250
1,1,2,2-Tetrachloroethane	ND	250
1,2-Dichloropropane	ND	250
Trans-1,3-Dichloropropene	ND	250
Trichloroethylene	999	250
Dibromochloromethane	ND	250
1,1,2-Trichloroethane	ND	250
Benzene	1,741	250
Cis-1,3-Dichloropropene	ND	250
2-Chloroethyl Vinyl Ether	ND	250
Bromoform	ND	250
Tetrachloroethylene	3,020	250
Toluene	ND	250
Chlorobenzene	15,700	250
Ethylbenzene	ND	250
m-Xylene	ND	500
o,p-Xylene	ND	500



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**All-Test Environmental Laboratories
Volatile Organic Analysis Data**

Case No. 60027

Sample No. S-2242 MW-26

Client Name: Hetitage Rem/Eng

Matrix: Aqueous

Dilution Factor: 50

Date Analyzed: 12/28/90

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
1,3-Dichlorobenzene	ND	500
1,2-Dichlorobenzene	3,098	500
1,4-Dichlorobenzene	ND	500
Acrolein	ND	1000
Acrylonitrile	ND	500

ND = None Detected

MDL = Method Detection Limit

BMDL = Below Method Detection Limit

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>
1,2-Dichloroethane-d4	118%	76-114
Toluene-d8	111%	88-110
4-Bromofluorobenzene	111%	86-115

By:


Irving Berkowitz
Lab Manager



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**Volatile Organic Analysis Data
Tentatively Identified Compounds**

Case No. 60027

Sample No. S-2242 MW-26

Client Name: Heritage Eng/Rem

Matrix: Aqueous

Dilution Factor: 50

Date Analyzed: 12/28/90

COMPOUND NAME	Concentration Units ug/l		
	RT	EST. CONC.	Q
1) Diisopropyl ether	19.26	720	78
2)			
3)			
4)			
5)			
6)			
7)			
8)			
9)			
10)			
11)			
12)			
13)			
14)			
15)			



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Volatile Organic Analysis Data

Case No. 60027

Sample No. S-2242 Field Blank

Client Name: Heritage Eng/Rem

Matrix: Aqueous

Dilution Factor: 1.00

Date Analyzed: 12/26/90

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
Chloromethane	ND	10.0
Bromomethane	ND	10.0
Vinyl Chloride	ND	10.0
Chloroethane	ND	10.0
Methylene Chloride	2.3 BMDL	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethylene	ND	5.0
1,1 Dichloroethane	ND	5.0
Trans-1,2 Dichloroethylene	ND	5.0
Chloroform	ND	5.0
1,2-Dichloroethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Bromodichloromethane	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2-Dichloropropane	ND	5.0
Trans-1,3-Dichloropropene	ND	5.0
Trichloroethylene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
Cis-1,3-Dichloropropene	ND	5.0
2-Chloroethyl Vinyl Ether	ND	10.0
Bromoform	ND	5.0
Tetrachloroethylene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
m-Xylene	ND	10.0
o,p-Xylene	ND	10.0



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**All-Test Environmental Laboratories
Volatile Organic Analysis Data**

Case No. 60027

Sample No. S-2242 Field Blank

Client Name: Hetitage Rem/Eng

Matrix: Aqueous

Dilution Factor: 1.00

Date Analyzed: 12/26/90

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
1,3-Dichlorobenzene	ND	10.0
1,2-Dichlorobenzene	ND	10.0
1,4-Dichlorobenzene	ND	10.0
Acrolein	ND	20.0
Acrylonitrile	ND	10.0

ND = None Detected

MDL = Method Detection Limit

BMDL = Below Method Detection Limit

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>
1,2-Dichloroethane-d4	88%	76-114
Toluene-d8	96%	88-110
4-Bromofluorobenzene	96%	86-115

By:


Irving Berkowitz
Lab Manager



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**Volatile Organic Analysis Data
Tentatively Identified Compounds**

Case No. 60027

Sample No. S-2242 Field Blank

Client Name: Heritage Eng/Rem

Matrix: Aqueous

Dilution Factor: 1.00

Date Analyzed: 12/26/90

COMPOUND NAME	Concentration Units ug/l		
	RT	EST. CONC.	Q
1) 1-Hexanol, 2-ethyl-	35.54	70	60
2)			
3)			
4)			
5)			
6)			
7)			
8)			
9)			
10)			
11)			
12)			
13)			
14)			
15)			



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Volatile Organic Analysis Data

Case No. 60027
Sample No. S-2242 Trip Blank
Client Name: Heritage Eng/Rem

Matrix: Aqueous
Dilution Factor: 1.00
Date Analyzed: 12/26/90

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
Chloromethane	ND	10.0
Bromomethane	ND	10.0
Vinyl Chloride	ND	10.0
Chloroethane	ND	10.0
Methylene Chloride	2.5 BMDL	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethylene	ND	5.0
1,1 Dichloroethane	ND	5.0
Trans-1,2 Dichloroethylene	ND	5.0
Chloroform	ND	5.0
1,2-Dichloroethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Bromodichloromethane	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2-Dichloropropane	ND	5.0
Trans-1,3-Dichloropropene	ND	5.0
Trichloroethylene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
Cis-1,3-Dichloropropene	ND	5.0
2-Chloroethyl Vinyl Ether	ND	10.0
Bromoform	ND	5.0
Tetrachloroethylene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
m-Xylene	ND	10.0
o,p-Xylene	ND	10.0



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Volatile Organic Analysis Data

Case No. 60027

Sample No. S-2242 Trip Blank

Client Name: Hetitage Rem/Eng

Matrix: Aqueous

Dilution Factor: 1.00

Date Analyzed: 12/26/90

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
1,3-Dichlorobenzene	ND	10.0
1,2-Dichlorobenzene	ND	10.0
1,4-Dichlorobenzene	ND	10.0
Acrolein	ND	20.0
Acrylonitrile	ND	10.0

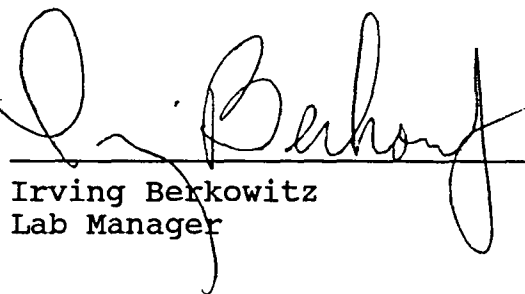
ND = None Detected

MDL = Method Detection Limit

BMDL = Below Method Detection Limit

<u>SURROGATE COMPOUNDS</u>	<u>RECOVERY</u>	<u>LIMITS</u>
1,2-Dichloroethane-d4	81%	76-114
Toluene-d8	88%	88-110
4-Bromofluorobenzene	90%	86-115

By:


Irving Berkowitz
Lab Manager



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**Volatile Organic Analysis Data
Tentatively Identified Compounds**

Case No. 60027

Sample No. S-2242 Trip Blank

Client Name: Heritage Eng/Rem

Matrix: Aqueous

Dilution Factor: 1.00

Date Analyzed: 12/26/90

COMPOUND NAME	Concentration Units ug/l		
	RT	EST. CONC.	Q
1) 1-Hexanol, 2-ethyl-	35.53	170	70
2)			
3)			
4)			
5)			
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**ALL-TEST
ENVIRONMENTAL
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60 Railroad Avenue, Hasbrouck Heights, N.J. 07604

(201) 288-6511

FAX: (201) 288-6887

**ALL-Test Environmental Laboratories
Base Neutral/Acid Extractable Analysis**

Case No. 60027 MW-20

Sample No. S-2242

Client Name: Heritage Rem/Eng

Matrix: Aqueous

Dilution Factor: 1.10

Date Extracted 12/18/90

Date Analyzed 1/9/91

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
Phenol	ND	11.0
bis(-2-Chloroethyl)Ether	ND	11.0
2-Chlorophenol	ND	11.0
1,3-Dichlorobenzene	ND	11.0
1,4-Dichlorobenzene	ND	11.0
Benzyl Alcohol	ND	11.0
1,2-Dichlorobenzene	3.2 BMDL	11.0
bis(2-Chloroisopropyl)ether	ND	11.0
4-Methylphenol	ND	11.0
N-Nitroso-Dipropylamine	ND	11.0
Hexachloroethane	ND	11.0
Nitrobenzene	ND	11.0
Isophorone	ND	11.0
2-Nitrophenol	ND	11.0
2,4-Dimethylphenol	ND	11.0
Benzoic Acid	ND	55.0
Bis(-2-Chloroethoxy)methane	ND	11.0
2,4-Dichlorophenol	ND	11.0
1,2,4-Trichlorobenzene	ND	11.0
Naphthalene	ND	11.0
4-Chloraniline	ND	11.0
Hexachlorobutadiene	ND	11.0
4-Chloro-3-Methylphenol	ND	11.0
2-Methylnaphthalene	ND	11.0
Hexachlorocyclopentadiene	ND	11.0
2,4,6-Trichlorophenol	ND	11.0
2,4,5-Trichlorophenol	ND	55.0
2-Chloronaphthalene	ND	11.0
2-Nitroaniline	ND	55.0
Dimethyl Phthalate	ND	11.0
Acenaphthylene	ND	11.0
3-Nitroaniline	ND	55.0
Acenaphthene	ND	11.0
2,4-Dinitrophenol	ND	55.0



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ALL-Test Environmental Laboratories Base Neutral/Acid Extractable Analysis

Case No. 60027 MW-20
Sample No. S-2242
Client Name: Heritage Rem/Eng

Matrix: Aqueous
Dilution Factor: 1.10
Date Extracted 12/18/90
Date Analyzed 1/9/91

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
4-Nitrophenol	ND	55.0
Dibenzofuran	ND	11.0
2,4-Dinitrotoluene	ND	11.0
2,6-Dinitrotoluene	ND	11.0
Diethylphthalate	ND	11.0
4-Chlorophenyl-phenyl Ether	ND	11.0
Fluorene	ND	11.0
4-Nitroaniline	ND	55.0
4,6-Dinitro-2-Methylphenol	ND	55.0
N-Nitrosodiphenylamine	ND	11.0
4-Bromophenyl-phenyl Ether	ND	11.0
Hexachlorobenzene	ND	11.0
Pentachlorophenol	ND	55.0
Phenanthrene	ND	11.0
Anthracene	ND	11.0
Di-n-Butylphthalate	ND	11.0
Fluoranthene	ND	11.0
Pyrene	ND	11.0
Butyl Benzyl Phthalate	ND	11.0
3,3'-Dichlorobenzidine	ND	22.0
Benzo(a)Anthracene	ND	11.0
Bis(2-Ethylhexyl)Phthalate	7.5 BMDL	11.0
Chrysene	ND	11.0
Di-n-octyl phthalate	1.0 BMDL	11.0
Benzo(b)fluoranthene	ND	11.0
Benzo(k)Fluoranthene	ND	11.0
Benzo(a)Pyrene	ND	11.0
Indeno(1,2,3-cd)Pyrene	ND	11.0
Dibenzo(a,h)Anthracene	ND	11.0
Benzo(g,h,i)Perylene	ND	11.0

ND = Indicates Compound Not Detected

MDL = Method Detection Limit

BMDL = Below Method Detection Limit



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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

90352.14

Lab Name: All-Test Environmental Laboratory

Contract:*****

Lab Code: 09399 Case No.: 90-449-05

SAS No.:*****

SDG No.:*****

Matrix: (soil/water) WATER

Lab Sample ID: 90352.14

Sample wt/vol: 910.00 (g/ml): ml

Lab File ID: >B1306

Level: (low/med) LOW

Date Received: 12/18/90

% Moisture: not dec.: 100.

Date Extracted: 12/18/90

Extraction: (Sepf/Cont/Sonc): SEPF

Date Analyzed: 1/9/91

GPC Cleanup: (Y/N) N

Dilution Factor: 1.10

pH: ****

CONCENTRATION UNITS:

Number TICs found: 25

(ug/l or ug/kg) ug/l

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 0	Unknown Compound	6.35	1	0
2. 624782	Ethanamine, N-methyl-	6.66	2	52
3. 0	Unknown Compound	6.92	3	0
4. 111762	Ethanol, 2-butoxy-	7.98	3	58
5. 109864	Ethanol, 2-methoxy-	9.44	2	38
6. 149575	Hexanoic acid, 2-ethyl-	13.08	1	46
7. 38412474	4H-1-Benzopyran-4-one, 7-hyd	17.65	3	27
8. 0	Unknown Compound	18.42	1	0
9. 13151434	Cyclodecane, methyl-	19.66	2	15
10. 62016346	Octane, 2,3,7-trimethyl-	20.11	1	60
11. 4733282	5H-Pyrano[2,3,4,5-lmn]phenan	21.06	1	11
12. 74381401	Propanoic acid, 2-methyl-, 1-	21.71	4	33
13. 630035	Nonacosane	23.18	1	86
14. 5603225	2-Quinolincarboxaldehyde, 8	24.60	2	35
15. 306	1,2-Benzenedicarboxylic acid	26.85	59	79
16. 42544376	Guanidine, N-methyl-N'-phenyl	28.16	1	15
17. 12154653	Ferrocene, (2-carboxyethenyl)	28.76	1	11
18. 67401267	2-Cyclohexen-1-one, 3-(2-but	28.87	1	15
19. 1119295	Pentanamide, 4-methyl-	31.49	2	15
20. 56700846	2,6-Piperazinedione, monooxi	31.87	2	25
21. 7225641	Heptadecane, 9-octyl-	32.91	2	76
22. 131168	1,2-Benzenedicarboxylic acid	33.32	24	56
23. 3648213	1,2-Benzenedicarboxylic acid	33.38	1	78
24. 7098217	Tritetracontane	33.91	1	55
25. 85609	Phenol, 4,4'-butylidenebis[2	34.96	7	88
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**ALL-Test Environmental Laboratories
Base Neutral/Acid Extractable Analysis**

Case No. 60027 MW-26

Sample No. S-2242

Client Name: Heritage Rem/Eng

Matrix: Aqueous

Dilution Factor: 1.10

Date Extracted 12/18/90

Date Analyzed 1/9/91

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
Phenol	ND	11.0
bis(-2-Chloroethyl)Ether	ND	11.0
2-Chlorophenol	ND	11.0
1,3-Dichlorobenzene	ND	11.0
1,4-Dichlorobenzene	ND	11.0
Benzyl Alcohol	ND	11.0
1,2-Dichlorobenzene	3.4 BMDL	11.0
bis(2-Chloroisopropyl)ether	ND	11.0
4-Methylphenol	ND	11.0
N-Nitroso-Dipropylamine	ND	11.0
Hexachloroethane	ND	11.0
Nitrobenzene	ND	11.0
Isophorone	ND	11.0
2-Nitrophenol	ND	11.0
2,4-Dimethylphenol	ND	11.0
Benzoic Acid	ND	55.0
Bis(-2-Chloroethoxy)methane	ND	11.0
2,4-Dichlorophenol	ND	11.0
1,2,4-Trichlorobenzene	ND	11.0
Naphthalene	ND	11.0
4-Chloraniline	ND	11.0
Hexachlorobutadiene	ND	11.0
4-Chloro-3-Methylphenol	ND	11.0
2-Methylnaphthalene	ND	11.0
Hexachlorocyclopentadiene	ND	11.0
2,4,6-Trichlorophenol	ND	11.0
2,4,5-Trichlorophenol	ND	55.0
2-Chloronaphthalene	ND	11.0
2-Nitroaniline	ND	55.0
Dimethyl Phthalate	ND	11.0
Acenaphthylene	ND	11.0
3-Nitroaniline	ND	55.0
Acenaphthene	ND	11.0
2,4-Dinitrophenol	ND	55.0



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ALL-Test Environmental Laboratories Base Neutral/Acid Extractable Analysis

Case No. 60027 MW-26

Sample No. S-2242

Client Name: Heritage Rem/Eng

Matrix: Aqueous

Dilution Factor: 1.10

Date Extracted 12/18/90

Date Analyzed 1/9/91

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
4-Nitrophenol	ND	55.0
Dibenzofuran	ND	11.0
2,4-Dinitrotoluene	ND	11.0
2,6-Dinitrotoluene	ND	11.0
Diethylphthalate	ND	11.0
4-Chlorophenyl-phenyl Ether	ND	11.0
Fluorene	ND	11.0
4-Nitroaniline	ND	55.0
4,6-Dinitro-2-Methylphenol	ND	55.0
N-Nitrosodiphenylamine	ND	11.0
4-Bromophenyl-phenyl Ether	ND	11.0
Hexachlorobenzene	ND	11.0
Pentachlorophenol	ND	55.0
Phenanthrene	ND	11.0
Anthracene	ND	11.0
Di-n-Butylphthalate	ND	11.0
Fluoranthene	ND	11.0
Pyrene	ND	11.0
Butyl Benzyl Phthalate	ND	11.0
3,3'-Dichlorobenzidine	ND	22.0
Benzo(a)Anthracene	ND	11.0
Bis(2-Ethylhexyl)Phthalate	7.1 BMDL	11.0
Chrysene	ND	11.0
Di-n-octyl phthalate	ND	11.0
Benzo(b)fluoranthene	ND	11.0
Benzo(k)Fluoranthene	ND	11.0
Benzo(a)Pyrene	ND	11.0
Indeno(1,2,3-cd)Pyrene	ND	11.0
Dibenzo(a,h)Anthracene	ND	11.0
Benzo(g,h,i)Perylene	ND	11.0

ND = Indicates Compound Not Detected

MDL = Method Detection Limit

BMDL = Below Method Detection Limit



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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

90352.16

Lab Name: All-Test Environmental Laboratory
Lab Code: 09399 Case No.: 90-449-05

Contract:*****
SAS No.:*****
SDG No.:*****

Matrix: (soil/water) WATER

Lab Sample ID: 90352.16

Sample wt/vol: 910.00 (g/ml): ml

Lab File ID: >B1307

Level: (low/med) LOW

Date Received: 12/18/90

% Moisture: not dec.: 100.

Date Extracted: 12/18/90

Extraction: (Sepf/Cont/Sonc): SEPF

Date Analyzed: 1/9/91

GPC Cleanup: (Y/N) N

Dilution Factor: 1.10

pH: ****

CONCENTRATION UNITS:
(ug/l or ug/kg) ug/l

Number TICs found: 25

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 75503	Methanamine, N,N-dimethyl-	6.36	1	52
2. 0	Unknown Compound	6.64	2	0
3. 0	Unknown Compound	6.92	3	0
4. 111762	Ethanol, 2-butoxy-	7.96	3	78
5. 0	Unknown Compound	9.48	5	0
6. 52728560	Hydrazine, 1-butyl-1-ethyl-	13.08	1	15
7. 38412474	4H-1-Benzopyran-4-one, 7-hyd	17.65	2	30
8. 294622	Cyclododecane	19.66	2	69
9. 62016346	Octane, 2,3,7-trimethyl-	20.11	1	60
10. 14677215	Isoxazole, 4,5-diphenyl-	21.06	1	26
11. 74381401	Propanoic acid, 2-methyl-, 1-	21.73	4	33
12. 544763	Hexadecane	23.18	1	83
13. 436	Phenanthrene d-10	24.60	2	41
14. 313	1,2-Benzenedicarboxylic acid	26.86	57	70
15. 55760140	Cyclobutaneacetonitrile, 1-m	28.16	1	15
16. 642319	9-Anthracenecarboxaldehyde	28.79	1	11
17. 55334015	Phenanthrene, 9-dodecyltetra	28.87	1	46
18. 1120076	Nonanamide	31.49	1	15
19. 17301303	Undecane, 3,8-dimethyl-	31.88	2	31
20. 629787	Heptadecane	32.91	2	94
21. 131168	1,2-Benzenedicarboxylic acid	33.32	23	59
22. 3648213	1,2-Benzenedicarboxylic acid	33.38	1	78
23. 7098228	Tetratetracontane	33.91	1	50
24. 85609	Phenol, 4,4'-butylidenebis(2	34.97	7	92
25. 0	Unknown Compound	35.31	6	0
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ALL-TEST ENVIRONMENTAL LABORATORIES, INC.

60 Railroad Avenue, Hasbrouck Heights, N.J. 07604

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ALL-Test Environmental Laboratories Base Neutral/Acid Extractable Analysis

Case No. 60027 Field Blank
Sample No. S-2242
Client Name: Heritage Rem/Eng

Matrix: Aqueous
Dilution Factor: 1.08
Date Extracted 12/18/90
Date Analyzed 1/9/91

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
Phenol	ND	10.8
bis(-2-Chloroethyl) Ether	ND	10.8
2-Chlorophenol	ND	10.8
1-3-Dichlorobenzene	ND	10.8
1,4-Dichlorobenzene	ND	10.8
Benzyl Alcohol	ND	10.8
1,2-Dichlorobenzene	ND	10.8
bis(2-Chloroisopropyl) ether	ND	10.8
4-Methylphenol	ND	10.8
N-Nitroso-Dipropylamine	ND	10.8
Hexachloroethane	ND	10.8
Nitrobenzene	ND	10.8
Isophorone	ND	10.8
2-Nitrophenol	ND	10.8
2,4-Dimethylphenol	ND	10.8
Benzoic Acid	ND	54.0
Bis(-2-Chloroethoxy) methane	ND	10.8
2,4-Dichlorophenol	ND	10.8
1,2,4-Trichlorobenzene	ND	10.8
Naphthalene	ND	10.8
4-Chloraniline	ND	10.8
Hexachlorobutadiene	ND	10.8
4-Chloro-3-Methylphenol	ND	10.8
2-Methylnaphthalene	ND	10.8
Hexachlorocyclopentadiene	ND	10.8
2,4,6-Trichlorophenol	ND	10.8
2,4,5-Trichlorophenol	ND	54.0
2-Chloronaphthalene	ND	10.8
2-Nitroaniline	ND	54.0
Dimethyl Phthalate	ND	10.8
Acenaphthylene	ND	10.8
3-Nitroaniline	ND	54.0
Acenaphthene	ND	10.8
2,4-Dinitrophenol	ND	54.0



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**ALL-Test Environmental Laboratories
Base Neutral/Acid Extractable Analysis**

Case No. 60027 Field Blank
Sample No. S-2242
Client Name: Heritage Rem/Eng

Matrix: Aqueous
Dilution Factor: 1.08
Date Extracted 12/18/90
Date Analyzed 1/9/91

<u>COMPOUND</u>	<u>UG/L</u>	<u>MDL(ug/l)</u>
4-Nitrophenol	ND	54.0
Dibenzofuran	ND	10.8
2,4-Dinitrotoluene	ND	10.8
2,6-Dinitrotoluene	ND	10.8
Diethylphthalate	ND	10.8
4-Chlorophenyl-phenyl Ether	ND	10.8
Fluorene	ND	10.8
4-Nitroaniline	ND	54.0
4,6-Dinitro-2-Methylphenol	ND	54.0
N-Nitrosodiphenylamine	ND	10.8
4-Bromophenyl-phenyl Ether	ND	10.8
Hexachlorobenzene	ND	10.8
Pentachlorophenol	ND	54.0
Phenanthrene	ND	10.8
Anthracene	ND	10.8
Di-n-Butylphthalate	ND	10.8
Fluoranthene	ND	10.8
Pyrene	ND	10.8
Butyl Benzyl Phthalate	ND	10.8
3,3'-Dichlorobenzidine	ND	21.6
Benzo(a)Anthracene	ND	10.8
Bis(2-Ethylhexyl)Phthalate	1.3 BMDL	10.8
Chrysene	ND	10.8
Di-n-octyl phthalate	ND	10.8
Benzo(b)fluoranthene	ND	10.8
Benzo(k)Fluoranthene	ND	10.8
Benzo(a)Pyrene	ND	10.8
Indeno(1,2,3-cd)Pyrene	ND	10.8
Dibenzo(a,h)Anthracene	ND	10.8
Benzo(g,h,i)Perylene	ND	10.8

ND = Indicates Compound Not Detected

MDL = Method Detection Limit

BMDL = Below Method Detection Limit



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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

90352.17

Lab Name: All-Test Environmental Laboratory
Lab Code: 09399 Case No.: 90-449-05
Matrix: (soil/water) WATER

Contract:*****
SAS No.:*****
SDG No.:*****

Lab Sample ID: 90352.17

Sample wt/vol: 930.00 (g/ml): ml

Lab File ID: >B1305

Level: (low/med) LOW

Date Received: 12/18/90

% Moisture: not dec.: 100.

Date Extracted: 12/18/90

Extraction: (Sepf/Cont/Sonc): SEPF

Date Analyzed: 1/9/91

GPC Cleanup: (Y/N) N

Dilution Factor: 1.08

pH: ****

CONCENTRATION UNITS:

(ug/l or ug/kg) ug/l

Number TICs found: 16

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	0 Unknown Compound	6.65	2	0
2.	0 Unknown Compound	6.91	4	0
3.	111762 Ethanol, 2-butoxy-	7.97	20	71
4.	109864 Ethanol, 2-methoxy-	9.43	3	31
5.	38412474 4H-1-Benzopyran-4-one, 7-hyd	17.64	4	27
6.	14677215 Isoxazole, 4,5-diphenyl-	21.05	2	25
7.	56728100 1-Hexene, 3,4,5-trimethyl-	21.72	3	20
8.	436 Phenanthrene d-10	24.60	2	42
9.	309 1,2-Benzenedicarboxylic acid	26.84	84	67
10.	0 Unknown Compound	28.16	1	0
11.	487069 2H-1-Benzopyran-2-one, 5,7-d	28.77	1	11
12.	629549 Hexadecanamide	31.49	3	38
13.	123795 Hexanedioic acid, dioctyl es	31.88	3	52
14.	629787 Heptadecane	32.92	1	66
15.	605458 1,2-Benzenedicarboxylic acid	33.30	19	52
16.	106241 2,6-Octadien-1-ol, 3,7-dimet	36.17	22	44
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Method 608 (Pesticides and PCB's)

Project No. 60027

Sample No. MW-20

Client Name: Heritage Remediation

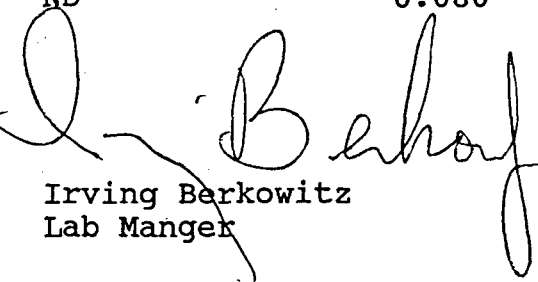
Matrix: Water

Lab No. S-2242

Date Analyzed 12/19/90

COMPOUND	Result UG/L	MDL UG/L
alpha-BHC	ND	0.003
gamma-BHC (Lindane)	ND	0.004
Beta-BHC	ND	0.006
Heptachlor	ND	0.003
Delta-BHC	ND	0.009
Aldrin	ND	0.004
Hepachlor epoxide	ND	0.083
Endosulfan I	ND	0.014
4,4'-DDE	ND	0.004
Dieldrin	ND	0.002
Endrin	ND	0.006
4,4'-DDD	ND	0.011
Endosulfan II	ND	0.004
4,4'-DDT	ND	0.012
Endrin aldehyde	ND	0.023
Endosulfan Sulfate	ND	0.066
Endrin Ketone	ND	0.010
alpha-Chlordane	ND	0.009
gamma-Chlordane	ND	0.009
Chlordane	ND	0.014
Toxaphene	ND	0.240
PCB-1016	ND	0.100
PCB-1221	ND	0.100
PCB-1232	ND	0.050
PCB-1242	ND	0.065
PCB-1248	ND	0.050
PCB-1254	ND	0.050
PCB-1260	ND	0.050
Methoxychlor	ND	0.080

By:


Irving Berkowitz
Lab Manager



**ALL-TEST
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Method 608 (Pesticides and PCB's)

Project No. 60027

Sample No. MW-Field Blank

Client Name: Heritage Remediation

Matrix: Water

Lab No. S-2242

Date Analyzed 12/19/90

COMPOUND	Result UG/L	MDL UG/L
alpha-BHC	ND	0.003
gamma-BHC (Lindane)	ND	0.004
Beta-BHC	ND	0.006
Heptachlor	ND	0.003
Delta-BHC	ND	0.009
Aldrin	ND	0.004
Hepachlor epoxide	ND	0.083
Endosulfan I	ND	0.014
4,4'-DDE	ND	0.004
Dieldrin	ND	0.002
Endrin	ND	0.006
4,4'-DDD	ND	0.011
Endosulfan II	ND	0.004
4,4'-DDT	ND	0.012
Endrin aldehyde	ND	0.023
Endosulfan Sulfate	ND	0.066
Endrin Ketone	ND	0.010
alpha-Chlordane	ND	0.009
gamma-Chlordane	ND	0.009
Chlordane	ND	0.014
Toxaphene	ND	0.240
PCB-1016	ND	0.100
PCB-1221	ND	0.100
PCB-1232	ND	0.050
PCB-1242	ND	0.065
PCB-1248	ND	0.050
PCB-1254	ND	0.050
PCB-1260	ND	0.050
Methoxychlor	ND	0.080

By:

Irving Berkowitz
Irving Berkowitz
Lab Manager



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60 Railroad Avenue, Hasbrouck Heights, N.J. 07604

(201) 288-6511 FAX: (201) 288-6887

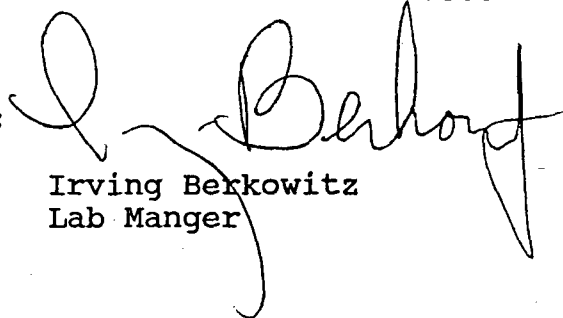
Method 608 (Pesticides and PCB's)

Project No. 60027
Sample No. MW-26
Client Name: Heritage Remediation

Matrix: Water
Lab No. S-2242
Date Analyzed 12/19/90

COMPOUND	Result UG/L	MDL UG/L
alpha-BHC	ND	0.003
gamma-BHC (Lindane)	ND	0.004
Beta-BHC	ND	0.006
Heptachlor	ND	0.003
Delta-BHC	ND	0.009
Aldrin	ND	0.004
Hepachlor epoxide	ND	0.083
Endosulfan I	ND	0.014
4,4'-DDE	ND	0.004
Dieldrin	ND	0.002
Endrin	ND	0.006
4,4'-DDD	ND	0.011
Endosulfan II	ND	0.004
4,4'-DDT	ND	0.012
Endrin aldehyde	ND	0.023
Endosulfan Sulfate	ND	0.066
Endrin Ketone	ND	0.010
alpha-Chlordane	ND	0.009
gamma-Chlordane	ND	0.009
Chlordane	ND	0.014
Toxaphene	ND	0.240
PCB-1016	ND	0.100
PCB-1221	ND	0.100
PCB-1232	ND	0.050
PCB-1242	ND	0.065
PCB-1248	ND	0.050
PCB-1254	ND	0.050
PCB-1260	ND	0.050
Methoxychlor	ND	0.080

By:


Irving Berkowitz
Lab Manger



**ALL-TEST
ENVIRONMENTAL
LABORATORIES, INC.**

60 Railroad Avenue, Hasbrouck Heights, N.J. 07604

(201) 288-6511 FAX: (201) 288-6887

Method 608 (PCB's)

Project No. 60027

Sample No. MW-RW

Client Name: Heritage Remediation

Matrix: Oil

Lab No. S-2242

Date Analyzed 1/11/91

COMPOUND	Result MG/L	MDL UG/L
PCB-1016	ND	0.50
PCB-1221	ND	0.50
PCB-1232	ND	0.50
PCB-1242	14.54 ppm	0.50
PCB-1248	ND	0.50
PCB-1254	ND	0.50
PCB-1260	ND	0.50

By:

Irving Berkowitz
Lab Manger



**ALL-TEST
ENVIRONMENTAL
LABORATORIES, INC.**

60 Railroad Avenue, Hasbrouck Heights, N.J. 07604

(201) 288-6511 FAX: (201) 288-6887

January 8, 1991

Heritage Remediation/Engineering, Inc.
Toledo Division
5656 Opportunity Drive
Toledo, Ohio 43612

Re: Project No. 60027 MW-26
Lab Project No. S-2242

Please note the following results for the " Monitoring Well
Water " sample received on 12/18/90 and tested for " Priority
Pollutant Metals (13) ", " Total Phenols and Total Cyanide ".

Priority Pollutant Metals

Compound	Results	Units	MDL
Zinc	86	ug/l (ppb)	20 ppb
Copper	ND	ug/l (ppb)	20 ppb
Lead	ND	ug/l (ppb)	200 ppb
Nickel	140	ug/l (ppb)	50 ppb
Chromium	ND	ug/l (ppb)	30 ppb
Cadmium	ND	ug/l (ppb)	20 ppb
Silver	ND	ug/l (ppb)	20 ppb
Thallium	ND	ug/l (ppb)	400 ppb
Antimony	ND	ug/l (ppb)	300 ppb
Beryllium	ND	ug/l (ppb)	50 ppb
Mercury	ND	ug/l (ppb)	.5 ppb
Arsenic	21	ug/l (ppb)	3 ppb
Selenium	ND	ug/l (ppb)	3 ppb

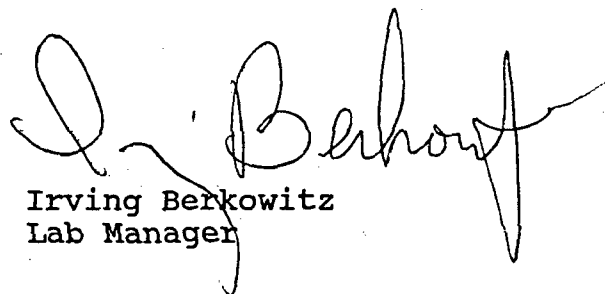
Total Phenols - 10.8 ug/l (ppb) 5 ppb

Total Cyanide - ND ug/l (ppb) .2 ppb

MDL = Method Detection Limit

ND = Non Detected

by:


Irving Berkowitz
Lab Manager



**ALL-TEST
ENVIRONMENTAL
LABORATORIES, INC.**

60 Railroad Avenue, Hasbrouck Heights, N.J. 07604

(201) 288-6511 FAX: (201) 288-6887

January 8, 1991

Heritage Remediation/Engineering, Inc.
Toledo Division
5656 Opportunity Drive
Toledo, Ohio 43612

Re: Project No. 60027 MW-Field Blank
Lab Project No. S-2242

Please note the following results for the " Monitoring Well
Water " sample received on 12/18/90 and tested for " Priority
Pollutant Metals (13) ", " Total Phenols and Cyanide ".

Priority Pollutant Metals

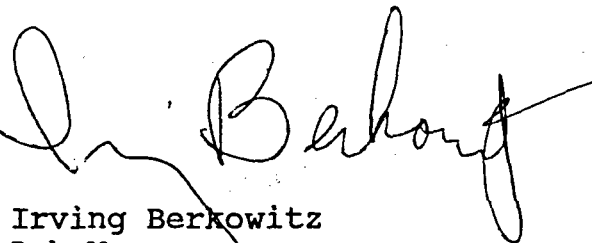
Compound	Results	Units	MDL
Zinc	ND	ug/l (ppb)	20 ppb
Copper	ND	ug/l (ppb)	20 ppb
Lead	ND	ug/l (ppb)	200 ppb
Nickel	ND	ug/l (ppb)	50 ppb
Chromium	ND	ug/l (ppb)	30 ppb
Cadmium	ND	ug/l (ppb)	20 ppb
Silver	ND	ug/l (ppb)	20 ppb
Thallium	ND	ug/l (ppb)	400 ppb
Antimony	ND	ug/l (ppb)	.3 ppm
Beryllium	nd	ug/l (ppb)	50 ppb
Mercury	ND	ug/l (ppb)	.5 ppb
Arsenic	8	ug/l (ppb)	3 ppb
Selenium	ND	ug/l (ppb)	3 ppb

Total Phenols - ND ug/l (ppb) 5 ppb

Total Cyanide - ND ug/l (ppb) .2 ppb

MDL = Method Detection Limit
ND = Non Detected

by:


Irving Berkowitz
Lab Manager



**ALL-TEST
ENVIRONMENTAL
LABORATORIES, INC.**

60 Railroad Avenue, Hasbrouck Heights, N.J. 07604

(201) 288-6511 FAX: (201) 288-6887

January 8, 1991

Heritage Remediation/Engineering, Inc.
Toledo Division
5656 Opportunity Drive
Toledo, Ohio 43612

Re: Project No. 60027 MW-20
Lab Project No. S-2242

Please note the following results for the " Monitoring Well
Water " sample received on 12/18/90 and tested for " Total
Phenols and Total Cyanide ".

Compound	Results	Units	MDL
<u>Total Phenols</u> -	ND	ug/l (ppb)	5 ppb
<u>Total Cyanide</u> -	ND	ug/l (ppb)	.2 ppb

MDL = Method Detection Limit
ND = Non Detected

by:


Irving Berkowitz
Lab Manager

APPENDIX C

HERITAGE REMEDIATION/ENGINEERING, INC.



5656 Opportunity Drive
Toledo, OH 43612
Phone: 419/478-4396
FAX: 419/478-4560

February 4, 1991

Mr. Louis Mikolaczjyk
Bureau Chief of New Source Review
State of New Jersey
Department of Environmental Protection
Division of Environmental Quality
Air Pollution Control Permit Program
CN 027
Trenton, NJ 08625

RE: Special Condition Request for Control Requirements

Company Name:	Hexcel Corporation
Plant Location:	205 Main St., Lodi, NJ
Designation of Stack:	GWT-1
Application Log #:	01903837
Approval Date:	12/14/90
Approval Status Code:	51
ECRA Case No.	86009
HR/E Project No.	60027

Dear Mr. Mikolaczjyk:

Heritage Remediation/Engineering, Inc. (HR/E) under the direction of Mr. A. William Nosil, of the Hexcel Corporation, is installing ground-water treatment equipment requiring an Air Control Apparatus permit. ENVIRON, Inc. is an engineering firm also representing Hexcel in these matters. We have reviewed the conditional approval letter (attached) and make this request for an extension in meeting a number of the control requirements. In short, we would like to begin operational testing of the treatment equipment prior to installation of required monitoring equipment. Furthermore, due to some specific features of our control equipment, we request that monitoring be conducted on some other effluent conditions in lieu of what has been required.

Our treatment system equipment includes dual air stripping towers (in series) with dual granular activated carbon canisters (also in series) to remove volatile and semi-volatile organic compounds. Effluent air from the strippers is directed to a 450 cubic feet per minute (cfm) catalytic incinerator.

Our request for modification applies to general conditions and to control requirements of the permit application. We make two general requests. One, that we be given 180 days to



Mr. Louis Mikolaczjyk
January 29, 1991
Page 2

operate on an interim basis until permit conditions can be established, equipment (if necessary) can be specified, ordered, installed and monitoring protocols can be established with Continuous Emission Monitoring System (CEMS).

You will note that ENVIRON has made a separate request to you via Toby Hanna to modify the conditions and requirements as part of the permit.

Condition no. 2 also specifies that a flow meter and a continuous recorder shall be installed to monitor the flow to the stripper. Due to the relative short period of daily operation and the maximum flow limit of 15 gpm we request that a daily recording of a totalizing flow meter be accepted.

Control Requirement no. 3 specifies installation of a continuous hydrocarbon monitor and recorder. Our request is for an extension in installation of this equipment for 180 days from the date of this request. Our request is made due to the short notice that this equipment would be necessary. Our client, in a Conditional Cleanup Plan Approval letter of August, 1990 from the Bureau of Environmental Cleanup Responsibility Act is required to begin ground-water cleanup by about January 15, 1991. The treatment system, which currently includes a water flow rate monitor, an incinerator inlet vapor lower explosive limit (LEL) monitor and an incinerator exit vapor temperature monitor will be ready for testing the week of February 4, 1991. Initial operation is desired beginning the week of February 11, 1991. Since the system will not operate without an inlet temperature exceeding 700 deg. F., operation showing that temperature is maintained should sufficiently demonstrate 95% destruction of VOCs.

HR/E and ENVIRON have not had an opportunity to discuss the appropriateness of this newly required equipment. We would like to be able to discuss with the agency the appropriateness of continuous hydrocarbon monitoring and recording equipment. We believe that the control equipment purchased with the incinerator should be sufficient to demonstrate that minimal hydrocarbons are emanating from the equipment.

Furthermore, control requirement 5 specifies that details on the continuous monitors, recording devices, sample collection, etc. be submitted to the Chief, Bureau of Technical Services. We request an extension of 100 days for submittal of these details. On January 15, 1991, we have had a discussion with Mr. Ed Choromanski, Chief of the Bureau of Technical Services, regarding acceptable monitoring equipment.

In summary, we request this extension to allow us to operate on a interim basis while clarifying permit requirements, obtaining appropriate monitoring equipment and installing and testing the equipment.



Mr. Louis Mikolaczjyk
January 29, 1991
Page 3

It is our client's desire to pursue ground-water cleanup in an effective manner. It is our opinion that the design criteria for the vapor incinerator is such that hydrocarbon, CO and O2 monitoring are not essential initially during field testing and then possibly for the long term use of the equipment.

If you have any questions please do not hesitate to contact us. We request that you give this your immediate attention so that we may be able to proceed as soon as possible.

Very truly yours,

HERITAGE REMEDIATION/ENGINEERING, INC.

Joseph D. Ritchey, P.E.
Project Director

CC: Jeff Macri, HR/E, Project Manager
Renee van de Griend, ENVIRON
A. William Nosil, Hexcel Corp., Corp. Env. Manager
James Higdon, Fine Organics Corp., Plant Manager
Gary Sanderson, NJDEP, Bureau of ECRA, Case Manager
Ed Choromanski, NJDEP, Bureau of Technical Services
Byron Sullivan, NJDEP, Metro Region Enforcement Officer
Toby Hanna, NJDEP, Bureau of New Source Review

DECEMBER
MONTHLY PROJECT STATUS REPORT
FOR
FORMER HEXCEL INDUSTRIAL
CHEMICALS FACILITY

Lodi Borough, Bergen County
Lodi, New Jersey

ECRA Case #86009

Submitted to:

New Jersey Department of Environmental Protection
401 East State Street, 5th Floor
Trenton, New Jersey 08625

Prepared by:

Heritage Remediation/Engineering, Inc.
5656 Opportunity Drive
Toledo, Ohio 43612

January 22, 1991

91RB1013.T1

885090044



5656 Opportunity Drive
Toledo, OH 43612
Phone: 419/478-4396
FAX: 419/478-4560

January 22, 1991

Mr. Gary Sanderson
Case Manager
Bureau of ECRA
NEW JERSEY DEPARTMENT of ENVIRONMENTAL PROTECTION
401 E. State St.
5th Floor
Trenton, N.J. 08625

RE: December Monthly Project Status Report
Former HEXCEL CORP. site.
205 Main Street, Lodi Borough
Bergen County, NJ
ECRA Case No. 86009
HR/E Project No. 60027

Dear Mr. Sanderson:

On behalf of HEXCEL CORPORATION, Heritage Remediation/Engineering, Inc. (HR/E) has prepared this report of Phase I remedial activities performed at the above reference site. This report is in partial fulfillment of paragraph 36 of the conditional approval letter requiring the submittal of a monthly status report. This report describes activities performed over the period from December 1, 1990 to January 1, 1991.

1. Treatment System

During the month of December 1990, the catalytic incinerator and dual air stripping towers were positioned on the platform in Building I. Electrical and natural gas lines were installed for the system. Also, two 4,000-gallon equalization tanks were positioned in the basement of Building I to compliment the two existing 1,650-gallon tanks.

Approximately 2,000 gallons of water was treated through the carbon cells. Some of this water did not meet discharge criteria, and was stored in the frac tank until

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further treatment could be arranged.

The control well pumping system manufactured by QED was installed to extract ground water from the wells. This system consists of pneumatic brass Pulse Pumps and remote well operators at control wells (CW-3 and CW-5), (CW-9, CW-11, and CW-15), and (CW-18 and CW-21). Control panels were installed in the Product Storage Room, Building I, and in the electrical room adjacent to the DNAPL recovery storage area. Preliminary testing of this system indicated a possible malfunctioning air line in control well set CW-9, CW-11, and CW-15. Repairs will be made during the month of January 1991.

2. Monitoring Wells

On December 11, 1990 additional monitoring wells were installed. These wells are MW-22 and MW-26. Boring logs and well completion diagrams are attached in Appendix A of this report. Monitoring well MW-22 is located on the corner of Main Street and Molnar Road, and MW-26 is a double cased well installed in Building II. This well was installed by air rotary methods. Cobble refusal was encountered at 14.5 feet below grade and concrete refusal was encountered at 15.0 feet and was two feet in thickness. A six-inch steel casing was placed in the bore hole into the concrete obstruction and sealed with a cement/bentonite mixture. A two-inch diameter PVC monitoring well was then installed inside the outer casing to a depth of nineteen feet with two feet of slotted screen.

Monitoring wells MW-20 and MW-26 were purged and sampled by HR/E personnel for laboratory analysis by All-Test Environmental Laboratories, Inc. of Hasbrouck Heights, New Jersey. Monitoring well MW-20 is located off site at 210 Main Street. This well was re-sampled to confirm earlier laboratory results from ground water obtained in November 1990. At this time confirmation results were not available. Monitoring well MW-22 was not sampled due to difficulties developing the well.

Each well sampled (MW-20 and MW-26) was purged of three to five well volumes of water, and then samples were taken with a decontaminated stainless steel pneumatic pump with teflon bladder and tubing. Bottles were clearly marked, and appropriate chain-of-custody forms accompanied the samples to the analytical laboratory. Samplers and sample containers were cleaned and prepared for field use according to USEPA procedures. Purge water was containerized in 55-gallon drums and transferred on site for later treatment.

Parameters included; total cyanide, total phenols, pesticides and PCBs (Method 608), priority pollutant metals (13), acid/base neutrals with NBS search (Method 625), and volatile organics with NBS search (Method 624). In addition, LNAPL from the recovery well in the underground storage tank (UST) area was sampled for a fingerprint analysis by GC-FID methods. This will allow comparison/contrast to the previous sampling and analysis of the LNAPL obtained from MW-23 on Molnar Road. Results of the analysis are not available at this time.

3. DNAPL System

The DNAPL recovery system became operational in December. Two wells (RW7-1 and RW7-5) were plumbed to a storage tank and sinker recovery pumps manufactured by R.E. Wright were installed. Some adjustments have been made to the level controls due to collection of some water with the DNAPL. In December, approximately 500 gallons have been recovered with 30% being water for approximately 300 gallons of DNAPL. To date, about 990 gallons of DNAPL have been recovered.

4. LNAPL SYSTEM

It was reported in the January 1991 Interim Project Report that the LNAPL system was not operational. The control panel was repaired and now the system is functional. No LNAPL has appeared in RW15-2 or in piezometer P-2.

5. Site Meeting With NJDEP

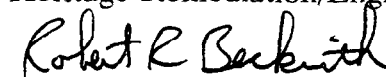
On December 11, 1990 a site meeting was held between NJDEP, HR/E, Hexcel, Environ, and Fine Organics representatives. As a result of the meeting, HR/E prepared a plan for installation of three additional monitoring wells in the vicinity of MW-23 and two additional DNAPL wells (see attached map), additional ground-water sampling and analysis, an additional LNAPL recovery pump for installation in the RW well in the UST area, measurement of pre-pumping levels and collection of hydraulic control data. This plan was approved by Hexcel on December 20, 1990.

6. Elevation Survey

An elevation survey was completed in December by the Albert N. Faraldi Group of Secausus, New Jersey, a state licensed land surveyor. In addition to the elevation survey, coordinates of the control wells, recovery wells, and monitoring wells were established. The surveyors also measured the elevations of the manholes and catch basins and prepared stream profiles at four locations (see attached figures). Survey data is attached in Appendix B. HR/E installed a staff gage in the Saddle River at the State Route 46 bridge.

Should you have any questions or concerns regarding this report, please do not hesitate to call.

Respectfully,
Heritage Remediation/Engineering, Inc.



Robert R. Beckwith, CPG
Senior Hydrogeologist

RRB/ldg

Attachments

cc: A. William Nosil
John Schroeter
Jeff Macri

APPENDIX A

HERITAGE REMEDIATION/ENGINEERING, INC.
5656 OPPORTUNITY DRIVE
TOLEDO, OHIO 43612
(419) 478-4396

PAGE NO. 1 OF 1

BOREHOLE NO. MW-22

JOB NO. 60027

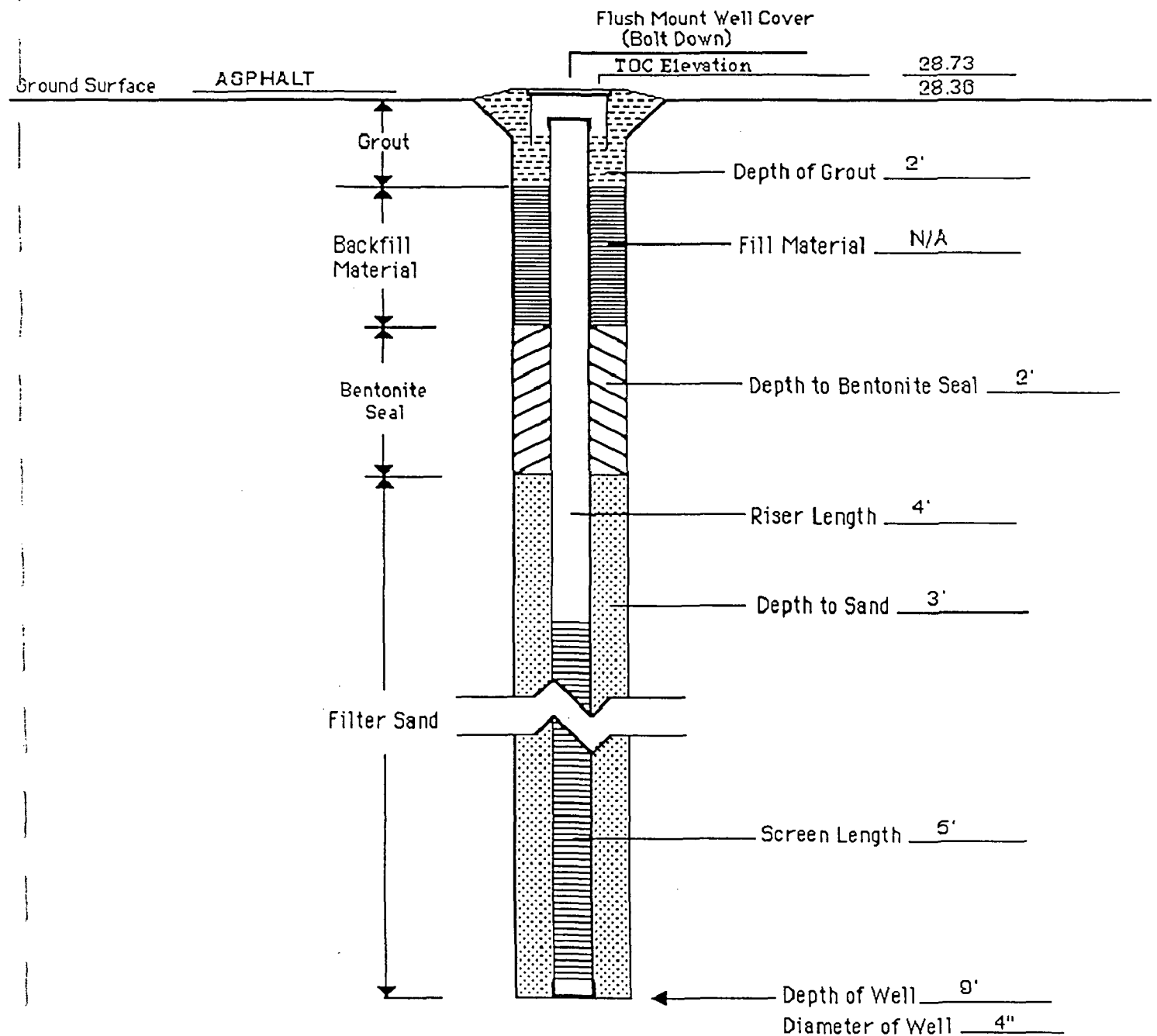
PROJECT- HEXCEL				LOCATION- LODI, NJ			
DRILLING CONTRACTOR- TES CORP.				DRILLING EQUIPMENT-			
HYDROGEOLOGIST- ROBERT BECKWITH				DRILLER- RICHARD HEAD			
DATE START/TIME 12-11		DATE FINISH/TIME 12-11-90		SURFACE ELEVATION -		TOTAL DEPTH- 10'	
WELL CASING- PVC		SCREEN TYPE- PVC		LENGTH- 5'		SLOT- 0.010"	
GROUND WATER				SAMPLING EQUIPMENT			
DATE	TIME	DEPTH	WEATHER	TYPE	CASING	CORE	SAMPLER
				DIAMETER			
				HAMMER WT			
				FALL HT.			

REMARKS

PTH (ft.)	SAMPLE NO.	SPT BLOW COUNT/6"	RECOVERY	BOREHOLE LOG	
				LITHOGRAPHIC DESCRIPTION	REMARKS
				SURFACE - ASPHALT	
				CONCRETE GRAVEL, COBBLES	
				TAN, MEDIUM-FINE, SAND	
				REDDISH-TAN, MEDIUM-FINE, SAND	
				SATURATED	
				GRAY, SILTY CLAY AT 9'	
				EOB	

885090050

Driller RICHARD HEAD	HERITAGE REMEDIATION/ENGINEERING, INC. 5656 OPPORTUNITY DRIVE TOLEDO, OHIO 43612 (419) 4784396	Well # MW-22
Drilling Method H.S.A.		Boring #
Hydrogeologist R. BECKWITH		Date: 12-11-00
Well Completion Log		Job # 60027
Client: HEXCEL CORP.		
Location: LODI, NEW JERSEY		



885090051

HERITAGE REMEDIATION/ENGINEERING, INC.
5656 OPPORTUNITY DRIVE
TOLEDO, OHIO 43612
(419) 478-4396

PAGE NO. 1 OF 1

BOREHOLE NO. MW-26

JOB NO. 60027

PROJECT- HEXGEL				LOCATION- LODI, NJ			
DRILLING CONTRACTOR- TES CORP.				DRILLING EQUIPMENT-			
HYDROGEOLOGIST- ROBERT BECKWITH				DRILLER- RICHARD HEAD			
DATE START/TIME 12-11		DATE FINISH/TIME 12-11-00		SURFACE ELEVATION -		TOTAL DEPTH- 19'	
WELL CASING- PVC		SCREEN TYPE- PVC		LENGTH- 2'		SLOT- 0.010"	
GROUND WATER				SAMPLING EQUIPMENT			
DATE	TIME	DEPTH	WEATHER	TYPE	CASING	CORE	SAMPLER
				DIAMETER			
				HAMMER WT			
				FALL HT.			

REMARKS

DEPTH (ft.)	SAMPLE NO.	SPT BLOW COUNT/6"	RECOVERY	BOREHOLE LOG	
				LITHOGRAPHIC DESCRIPTION	REMARKS
				SURFACE - CONCRETE	
				REDDISH-BROWN SILTY SAND.	6 1/4 I.D. HSA
				REDDISH-BROWN SILTY SAND WITH GRAVEL	REFUSAL 4" THICK
				GAME AS ABOVE - SATURATED	
				RED SANDSTONE COBBLES, GRAVEL	
				CONCRETE	REFUSAL AT 14.5'

885090052

HERITAGE REMEDIATION/ENGINEERING, INC.
5656 OPPORTUNITY DRIVE
TOLEDO, OHIO 43612
(419) 478-4396

PAGE NO. 2 OF 2

BOREHOLE NO. MW-26

JOB NO. 60027

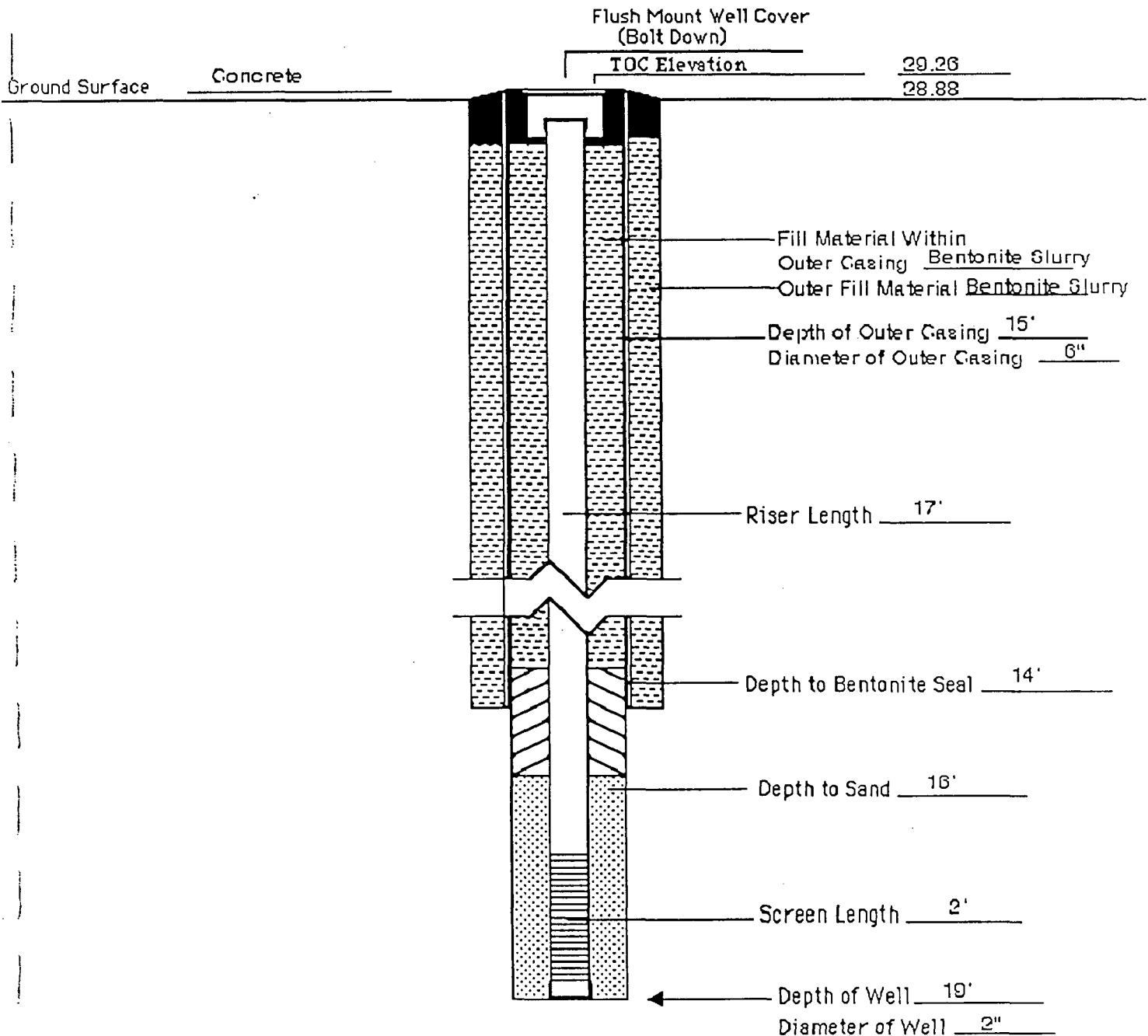
DEPTH	SAMPLE NO.	SPT BLOW COUNT/6"	RECOVERY	BOREHOLE LOG	
				LITHOGRAPHIC DESCRIPTION	REMARKS
				CONCRETE	
				REDDISH-BROWN, SILTY SAND	
				— EOB —	
				6" OUTER STEEL CASING GROUTED INTO CONCRETE REFUSAL AT 15'	
				2" I.D. PVC WELL WITH 2' 0.010" SLOTTED SCREEN	

885090053

Driller RICHARD HEAD	HERITAGE REMEDIATION/ENGINEERING, INC. 5656 OPPORTUNITY DRIVE TOLEDO, OHIO 43612 (419) 4784396	Well # MW-26
Drilling Method AIR ROTARY		Boring #
Hydrogeologist BOB BECKWITH		Date: 12-11-90
		Well Completion Log

Client: HEXCEL CORP.

Location: LODI, NEW JERSEY



885090054

APPENDIX B



ALBERT N. FARALDI GROUP, PC

PROFESSIONAL LAND SURVEYORS & PLANNERS
854 EIGHTH STREET, P.O. BOX 1069, SUITE 102
SECAUCUS, NEW JERSEY 07096-1069 (201) 867-8044 FAX (201) 867-0984

ALBERT N. FARALDI, PLS, PP
N.J. Lic. 29346
P.P. Lic. 3182

FINE ORGANICS CORPORTION SITE
HEXCEL CORPORTION
LODI, NEW JERSEY
NOVEMBER 30, 1990

ELEVATIONS OF MONITORING WELLS

<u>WELL</u>	<u>GROUND</u>	<u>STEEL RIM</u>	<u>TOP OF PVC PIPE</u>
MW 1	29.03	32.61	32.42
MW 2	27.90	31.42	31.00
MW 3	27.84	31.33	31.13
MW 4	29.02	32.56	32.28
MW 5	29.03	32.70	32.50
MW 6	27.14	31.03	30.70
MW 7	27.18	30.85	30.68
MW 8	26.92	30.49	30.26
MW 9	26.89	30.02	29.83
MW 10	27.33	31.10	30.83
MW 11	27.28	30.96	30.78
MW 12	27.62	31.49	31.01
MW 13	27.63	31.33	31.16
MW 14	27.12	30.92	30.70
MW 15	27.17	30.95	30.77
MW 16	26.71	29.88	29.69
MW 17	29.10	32.43	31.53
MW 18	29.04	32.46	32.23
MW 19	27.30	29.42	29.08

Elevation Datum: New Jersey Vertical Datum - 1929

Monument # 3899 - Elevation 43.155

885090056



ALBERT N. FARALDI GROUP, PC

PROFESSIONAL LAND SURVEYORS & PLANNERS
854 EIGHTH STREET, P.O. BOX 1069, SUITE 102
SECAUCUS, NEW JERSEY 07096-1069 (201) 867-8044 FAX (201) 867-0984

ALBERT N. FARALDI, PLS, PP
N.J. Lic. 29346
P.P. Lic. 3182

FINE ORGANICS CORPORATION SITE
HEXCEL CORPORATION
LODI , NEW JERSEY
NOVEMBER 30, 1990

ELEVATIONS OF MONITORING WELLS

<u>WELL</u>	<u>GROUND ELEVATION</u>	<u>TOP RIM ELEVATION</u>	<u>INSERT ELEVATION</u>
MW 20	FLUSH	28.50	27.95
MW 21	28.8	31.25	30.67
MW 22	FLUSH	28.73	28.36
MW 23	FLUSH	27.83	27.29
MW 24	FLUSH	26.93	26.12
MW 25	FLUSH	26.47	26.03
MW 26	FLUSH	29.26	28.88
MW 27	29.1	31.65	31.43
MW 28	27.5	29.87	29.68

Elevation Datum: New Jersey Vertical Datum-1929
Reference Monument #3899 - Elevation 43.155'

885090057



ALBERT N. FARALDI GROUP, PC

PROFESSIONAL LAND SURVEYORS & PLANNERS
854 EIGHTH STREET, P.O. BOX 1069, SUITE 102
SECAUCUS, NEW JERSEY 07096-1069 (201) 867-8044 FAX (201) 867-0984

ALBERT N. FARALDI, PLS, PP
N.J. Lic. 29346
P.P. Lic. 3182

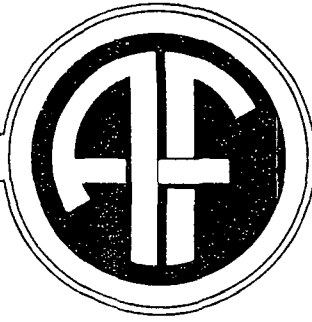
FINE ORGANICS CORPORATION SITE
HEXCEL CORPORATION
LODI, NEW JERSEY
NOVEMBER 30, 1990

ELEVATIONS OF CONTROL WELLS

<u>CONTROL WELL</u>	<u>TOP RIM ELEVATION</u>	<u>METAL INSERT ELEV.</u>	<u>GROUND ELEVATION</u>
Cw 1	30.27	29.77	FLUSH MOUNT
CW 2	30.11	29.51	FLUSH MOUNT
CW 3			
CW 4	NOT SECURED	29.00	29.1
CW 5	28.89	28.67	FLUSH MOUNT
Cw 6	29.25	28.93	FLUSH MOUNT
CW 7	NOT SECURED	26.13	26.7
CW 8	NOT SECURED	26.77	26.7
CW 9	NOT SECURED	26.37	26.6
CW 10	NOT SECURED	25.91	26.5
CW 11	26.60	25.74	FLUSH MOUNT
CW 12	26.51	25.71	FLUSH MOUNT
CW 13	NOT SECURED	26.05	26.6
Cw 14	NOT SECURED	26.37	26.7
Cw 15	NOT SECURED	26.31	26.9
CW 16	NOT SECURED	26.45	27.0
CW 17	NOT SECURED	26.25	27.1
CW 18	NOT SECURED	26.61	27.2
CW 19	NOT SECURED	26.50	27.2
CW 20	NOT SECURED	26.74	27.3
Cw 21	NOT SECURED	26.77	27.4
CW 22	NOT SECURED	26.35	27.3

Elevation Datum: New Jersey Vertical Datum - 1929
Reference Monument # 3899 - Elevation 43.155

885090058



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FINE ORGANICS CORPORATION SITE
HEXCEL CORPORATION
LODI, NEW JERSEY
NOVEMBER 30, 1990

ELEVATIONS OF RECOVERY WELLS

<u>WELL</u>	<u>TOP RIM ELEVATION</u>	<u>INSERT ELEVATION</u>
RW	28.67	28.38
RW 6-1	29.28	28.84
RW 6-3	29.02	28.64
RW 7-1	26.94	26.49
RW 7-2	27.07	26.48
RW 7-3	27.17	26.78
RW 7-4	27.60	27.11
RW 7-5	27.97	27.57
RW 7-6	27.10	26.48
RW 7-7	27.25	26.89
RW 7-8	26.71	25.90
RW 15-1	30.43	28.89
RW 15-2	30.37	30.13

Note: All Recovery Wells are flush mounts

Elevation Datum: New Jersey Vertical Datum-1929
Reference Monument #3899-Elevation 43.155'

885090059



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NOVEMBER 30, 1990

ELEVATIONS OF MANHOLES AND CATCH BASINS

MH 1	Cut on North Rim 26.69 Invert Unattainable due to stagnant, deep fluid and soil debris
MH 1A	North Rim 26.76
MH 2	Cut on North Rim 27.40 Invert 18.76 in, 18.76 out
MH 3	Cut on North Rim 27.05 Invert(6"pipe) 23.62-other inverts are not accurately attainable due to fluid and soil debris
MH 4	Cut on North Rim 27.24 Invert Unattainable, manhole is full of soil debris
MH 5	Cut on North Rim 27.43 Invert(6"pipe) 25.57 in, 25.57 out
MH 6	Cut on North Rim 27.91 All inverts 20.01
CB 6	Northeast corner 28.47 Invert 26.73
CB 7	This is now a yard type CB, paint spot on South side 27.91 Invert(full of debris)
MH 8	Cut on North Rim 27.47 Invert 21.76 more or less(stagnant flow and soil debris)
MH 9	North Rim 30.16
WATER WELL	North Rim 27.20

Elevation Datum: New Jersey Vertical Datum-1929
Reference Monument # 3899-Elevation 43.155'

885090060



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FINE ORGANICS CORPORATION SITE
HEXCEL CORPORATION
LODI, NEW JERSEY
DECEMBER 13, 1990

COORDINATES OF BUILDING CORNERS

SE 1	746305.89	2160835.32
SW 1	746326.52	2160750.84
NW 1	746410.30	2160770.83
NE 1	746390.78	2160851.48
SE 3	746461.71	2160885.87
SW 4	746517.34	2160796.30
NW 4	746556.30	2160805.57
NE 4	746533.21	2160902.90
Nw 5	746784.92	2160894.21
NE 5	746740.29	2160960.47
SE 5	746640.74	2160893.63
SW 5	746685.36	2160827.24
NW 6C	746430.24	2160904.93
SW 6C	746401.28	2160898.04
NW 6	746371.66	2160933.16
NW 6B	746368.74	2160890.52
SW 6A	746315.31	2160877.78
SE 6B	746320.44	2160956.13

COORDINATE DATUM: N.J. STATE PLANE COORDINATE SYSTEM,
NAD 1927

885090061



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FINE ORGANICS CORPORATION SITE
HEXCEL CORPORATION
LODI, NEW JERSEY
DECEMBER 13, 1990

COORDINATES OF MANHOLES AND CATCH BASINS

WATERWELL	746624.70	2160797.24
MH1	746385.19	2160750.78
MH1A	746308.99	2160720.46
MH2	746414.96	2160713.62
MH3	746462.13	2160735.11
MH4	746552.89	2160758.17
MH4A	746559.83	2160752.74
MH5	746636.86	2160836.73
CB6	746528.25	2160905.56
CB7	746677.39	2160968.80
MH9	746400.59	2160983.02

NOTE: MH6 AND MH8 COULD NOT BE LOCATED DUE TO DRUMS
STORED IN THE AREA.

COORDINATE DATUM: N.J. STATE PLANE COORDINATE SYSTEM,
NAD 1927

885090062



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FINE ORGANICS CORPORATION SITE

HEXCEL CORPORATION

LODI, NEW JERSEY

DECEMBER 13, 1990

COORDINATES OF RECOVERY WELLS

<u>WELL</u>	<u>NORTHING</u>	<u>EASTING</u>
RW	746304.05	2160839.97
RW 6-1	746452.87	2160791.44
RW 6-3	746395.96	2160838.76
RW 7-1	746433.41	2160748.38
RW 7-2	746452.39	2160750.61
RW 7-3	746470.95	2160760.32
RW 7-4	746498.10	2160774.65
RW 7-5	746515.22	2160784.90
RW 7-6	746495.02	2160737.53
RW 7-7	746539.29	2160772.20
RW 7-8	746414.66	2160743.86

COORDINATE DATUM: N.J. STATE PLANE COORDINATE
SYSTEM, NAD 1927

885090063



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DECEMBER 13, 1990

COORDINATES OF CONTROL WELLS

<u>WELL</u>	<u>NORTHING</u>	<u>EASTING</u>
CW-1	746394.46	2160981.04
CW-2	746371.79	2160975.86
CW-3	746320.44	2160968.87
CW-4	746313.95	2160967.48
CW-5	746282.21	2160942.68
CW-6	746288.51	2160913.86
CW-7	746327.61	2160692.70
CW-8	746342.22	2160678.01
CW-9	746361.85	2160680.83
CW-10	746381.74	2160681.64
CW-11	746402.65	2160684.24
CW-12	746422.98	2160685.77
CW-18	746527.63	2160727.93
CW-21	746579.55	2160797.87
CW-22	746598.01	2160769.07

COORDINATE DATUM: N.J. State Plane Coordinate System, NAD 1927

Note: Coordinates for Control Wells CW-13, CW-14, CW-15, CW-16, and CW-17 could not be obtained due to drums stored in the area that are located.
Control Wells CW-19 and CW-20 are in a trench and must be exposed to be properly located.

885090064



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FINE ORGANICS CORPORATION SITE
HEXCEL CORPORATION
LODI, NEW JERSEY
DECEMBER 13, 1990

COORDINATES OF MONITORING WELLS

<u>WELL</u>	<u>NORTHING</u>	<u>EASTING</u>
MW-1	746303.03	2160963.26
MW-2	746308.99	2160797.33
MW-3	746311.44	2160792.27
MW-4	746393.84	2160893.88
MW-5	746396.61	2160894.45
MW-6	746458.49	2160765.05
MW-7	746449.03	2160762.64
MW-8	746500.21	2160698.78
MW-9	746496.55	2160698.07
MW-10	746352.91	2160616.02
MW-11	746354.66	2160618.33
MW-12	746563.43	2160809.02
MW-13	746560.60	2160810.57
MW-14	746705.11	2160819.50
MW-15	746703.07	2160819.06
MW-16	746350.26	2160740.95
MW-17	746305.16	2160960.21
MW-18	746291.62	2160877.43
MW-19	746806.62	2160945.86
MW-20	746243.75	2161037.75
MW-21	746521.63	2160937.85
MW-22	746246.51	2160918.79
MW-23	746273.39	2160822.10
MW-24	746287.89	2160744.78
MW-25	746300.92	2160670.04
MW-26	746456.26	2160848.20
MW-27	746414.91	2160867.94
MW-28	746575.02	2160746.37

COORDINATE DATUM: N.J. State Plane Coordinate System, NAD 1927

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